

REMARKS

Claims 1-7 are pending. Claim 1 was rejected under 35 USC 103(a) as being unpatentable over Lehman, et. al., U.S. Patent 6,282,184 ("Lehman") in view of Oler, et. al., U.S. Patent 6,031,866 ("Oler"). The applicant respectfully disagrees. Claim 1 has been amended, and the amended claim now directs more accurately to communication systems conforming to CDMA2000 standard. Consistent with the amended claim 1, claims 8-11 are also added.

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the difference themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. See MPEP 2141.02. Discovering the source or the cause of a problem is part of "as a whole" inquiry. *Id.* Moreover, the Examiner bears the initial burden to establish a prima facie case of obviousness. See M.P.E.P. § 2142-43. The prior art cited by the Examiner would not render the claimed invention to be obvious.

A little bit of background information may be helpful to understand why this claimed invention is a significant improvement over prior art in CDMA2000 communication systems. The nature of the CDMA2000 standard is that the CDMA2000 base station transmitter's FIR filter and pre-distortion equalizer are designed in such a way to fulfil the need for voice communications without giving full consideration of the high speed packet data communications. Since the hardware design of the base station is impossible to alter due to the set standards, if no improvement is made on the mobile receiver side, the existing filter on the mobile receiver side cannot provide a good ICI reduction mechanism. The claimed invention calls for a design change in the mobile receiver to remedy the problem caused by such a limited and unalterable filter design on the base station side by including both the FIR filter and phase equalizer, both of

which match with the transmitter FIR filter and pre-distortion phase equalizer in the base station.

With both the matching filter and equalizer, the ICI can be significantly reduced.

Lehman deals with base station designs only, not remote or mobile receiver designs (see Abstract), and especially not for systems conforming to CDMA2000 standard. More specifically, the receiver identified by the Examiner is the receiver for the base station, not the receiver for the mobile receiver. As it is known to one skilled in the art, there is no need for a base station to have an equalizer in its receiver. The Examiner cannot find and, as expected, can only admit that Lehman does not teach a matching equalizer. Moreover, as for the FIR filter on the remote receiver side, the Examiner only generally stated that Lehman teaches the "receiver FIR filter being matched to said transmitter FIR filter," but failed to identify the support for this statement in Lehman.

The cited Oler is not relevant for the claimed invention. Oler deals with a totally different technical issue, i.e., a different type of distortion. Oler deals with equalization for reducing multi-path radio channel distortion. It is clear in Oler that the base station is implemented with additional design for reducing precursor intersymbol interference (ISI) while the mobile receiver is altered to reduce postcursor ISI. Both pre-cursor and post-cursor ISI are radio channel related source for distortion. In contrast, the present invention deals with the distortion caused by the transmitter filter on the base station side, not the radio channel distortion. These are two separate technical issues, distinctively identified, and can only be distinctively remedied.

In short, none of the prior art, Lehman or Oler, independently deals with the distortion caused by the transmitter filter on the base station side by provide solutions on the remote receiver side. Nor can the prior art references be combined at all to solve the same problem. More specifically, Lehman does not teach or suggest the use of an phase equalizer as it has no

need to do so in a base station's receiver, and Oler fails to suggest or teach the use of FIR filters as it focuses on radio channel equalization issue only, not RF equalization. Most importantly, none of them suggest in any way to implement the equalizer and FIR filter on a mobile receiver to reduce the ICI problem in CDMA2000 communication systems. As such, the rejection based on 35 USC 103 is misplaced and is suggested to be withdrawn. Applicant respectfully requests allowance of each of pending claims and newly added claims.

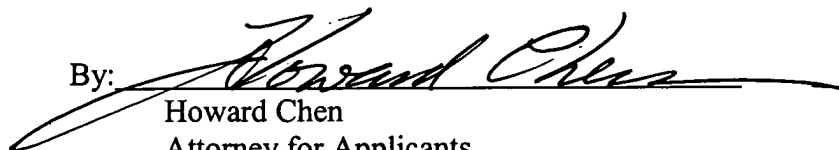
CONCLUSION

Applicant has made an earnest attempt to place this application in an allowable form. In view of the foregoing remarks, it is respectfully submitted that the pending claims are drawn to novel subject matter, patentably distinguishable over the prior art of record. The Examiner is therefore, respectfully requested to reconsider and withdraw the outstanding rejections.

Should the Examiner deem that any further clarification is desirable, the Examiner is invited to telephone the undersigned at the below listed telephone number.

Respectfully submitted,

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